

ABSTRACT

Thermal energy is converted into a mechanical energy by a thermal converter that includes a phase change material whose phase changes between solid and liquid as a result of temperature changes in the operating environment. Because the phase change material does not change to the gas state during operation, good thermal conductivity can be achieved within a normal operating temperature range and sufficient mechanical energy can be obtained, thereby enhancing the conversion efficiency of the thermal converter. Also, because the case in which the phase material is contained is not required to be at a high pressure, the case can be easily manufactured and a compressing means such as a strong spring is not required, thus reducing a size of whole device.